

conveyor at the same speed of movement as the conveyor so that the pushers carried on the control arm are moved across the conveyor in a diagonal direction and to return the control arm in the reverse direction to said one direction back across the top surface of the conveyor to the start position once the objects have been inserted into the cartons.--

R E M A R K S

Claim 1 has been amended so as to sharpen its definition of the invention relative to the prior art.

Reconsideration is accordingly respectfully requested, for the rejection of the claims as unpatentable over LANGEN et al. 4,93,6077 in view of FARRELLY 5,611,193.

In a nutshell: the combination of references should not be repeated, because the devices of the two references operate on very different principles. A person skilled in the art would accordingly not find any teaching or suggestion to combine the teachings of the two references.

In greater detail: LANGEN et al. discloses a much more complicated arrangement than in the present invention. There are at least two cam tracks, one to guide pushers into and out of product pockets and the other to separate and collate cylindrical products. Individual load divider blades 42 reciprocate to and fro across the conveyor and they do not move in a diagonal arrangement. Arms 62 and pusher heads 66 again move back and

forth across the conveyor and each pusher arm acts very much independently of the others as they are not on an individual arm and indeed this is shown by the fact that the pusher arms can divert along a branch line 80 if there is no correct alignment of a load with the carton to be filled.

FARRELLY is essentially a pick-and-place system whereby a single arm used to pick up containers from a feed line and an arm swings over so it is above a series of containers to be filled. The arm can rotate around 90° so that the containers can be picked from the feed line and can be deposited in the receiving packaging running along a second filling line. There is certainly no lateral movement of the arms during loading and there is no diagonal movement at all mentioned in this document.

Therefore, as the two documents show very different loading concepts, with no diagonal movement being shown by a single arm, a person skilled in the art would not combine the two documents.

Claim 1 has been amended so as to emphasize the above distinctions and so is believed to be patentable over the prior art. Claims 2-4 depend from claim 1 and are patentable for that reason, as well as by virtue of the further features of novelty that they separately recite.

In view of the present amendment and the foregoing remarks, therefore, it is believed that this application has been

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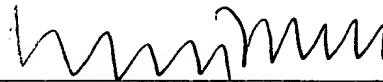
placed in condition for allowance, and reconsideration and allowance are respectfully requested.

Attached hereto is a marked-up version of the changes made to the claims. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Respectfully submitted,

YOUNG & THOMPSON

By



Robert J. Patch
Attorney for Applicants
Registration No. 17,355
745 South 23rd Street
Arlington, VA 22202
Telephone: 703/521-2297

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Amend claim 1 as follows:

--1. (twice amended) A carton filling device comprising a conveyor having a top surface and provided for moving cartons and objects to be located in the cartons simultaneously down a track with the objects respectively facing opposite to open ends of the cartons located at one side of the conveyor, and a single control arm situated in a start position at the other side of the conveyor and carrying at least two pushers for engaging the objects and pushing them across the top surface of the conveyor towards and into the open ends of separate cartons under control of a control mechanism adapted to move the single control arm in one direction not only across the conveyor, but also down the conveyor at the same speed of movement as the conveyor so that the pushers carried on the control arm are moved across the conveyor in a diagonal direction and to return the control arm in the reverse direction to said one direction back across the top surface of the conveyor to the start position once the objects have been inserted into the cartons.--